Doc Code: AP.PRE.REQ

PRE-APPEAL BRIEF REQUEST FOR REVIEW

Docket Number (Optional)	
873.0140.U1(US)	

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to "Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450" [37 CFR 1.8(a)]	Application Number	Filed
	10/770,881	February 3, 2004
on _Aug. 13, 2009_	**First Named Inventor**	
Signature _[signature]_	Zheng	
Typed or printed name __Gail Conway__	Art Unit	Examiner
	2152	Hussain, Tauqir

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a notice of appeal.

The review is requested for the reason(s) stated on the attached sheet(s).
Note: No more than five (5) pages may be provided.

I am the

☐ applicant/inventor.

☐ assignee of record of the entire interest.
See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed.
(Form PTO/SB/96)

☑ attorney or agent of record.
Registration number _____59,071_____

☐ attorney or agent acting under 37 CFR 1.34.
Registration number if acting under 37 CFR 1.34 _____

[signature]
Signature

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Typed or printed name

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__August 13, 2009__
Date

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required.
Submit multiple forms if more than one signature is required, see below*.

☐ *Total of _____ forms are submitted.

IN THE U.S. PATENT AND TRADEMARK OFFICE

In re U.S. Patent Application of:

APPLICANTS: Zheng et al.

SERIAL NO.:   10/770,881   FILING DATE: February 3, 2004

EXAMINER: Hussain, Tauqir   ART UNIT: 2152

ATTORNEY'S DOCKET NO.: 873.0140.U1(US)

TITLE: METHOD AND APPARATUS PROVIDING ADDRESS MANAGEMENT
              IN A FLAT STRUCTURE MOBILE NETWORK

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Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

PRE-APPEAL BRIEF REQUEST FOR REVIEW ATTACHMENT

The following is a concise recitation of a clear error in the Examiner's rejections in this application.

Claims 1-8, 10, 11 and 16-33 are pending. The Examiner rejected claims 1-8, 10, 11 and 16-33 under 35 U.S.C. §103(a) as being unpatentable over *Takahashi et al.* (U.S. Patent Application Publication No. 2004/0218573, hereinafter "*Takahashi*") in view of *Venkitaraman et al.* (U.S. Patent Application Publication No. 2003/0161287, hereinafter "*Venkitaraman*").

To warrant a §103(a) rejection of one or more claims, in view of all factual information, it must be determined that the claimed invention "as a whole" would have been obvious to one of ordinary skill in the art at the time the invention was made. The conclusion must be reached on the basis of the facts gleaned from the prior art. *See MPEP §2142.*

"All words in a claim must be considered in judging the patentability of that claim against the prior art." *In re Wilson,* 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970). If an independent claim is nonobvious under 35 U.S.C. §103, then any claim depending therefrom is nonobvious. *In re Fine,* 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988). *See, MPEP §§2142, 2143.03.*

Takahashi does not disclose or suggest use of a mobile router, such as that recited in claim 1 of the instant application, for example. The described MAP 50 is more akin to a home agent of the MN 10 than to a mobile router. For example, *Takahashi* discloses that the MN 10 sends a

binding update (BU) 64 to the MAP 50. BUs are typically sent from a mobile node to the home agent in order to inform the home agent concerning mobility of the mobile node. The operations disclosed by *Takahashi* with respect to the BU 64 comport with the conventional usage of BUs. *See e.g., paras. [0068], [0077].* It appears that *Takahashi* only discusses movement of the MN 10 amongst different ARs, particularly with respect to sending a BU 64 to the MAP 50 (e.g., the home agent) and obtaining an access node list from the MAP 50.

Furthermore, *Takahashi* does not disclose or suggest the presence of a mobile network having one or more intermediate nodes (e.g., a mobile router) between the MN 10 and the AR 30. *See, e.g., FIG. 1, 14.* For example, in FIG. 14 *Takahashi* depicts the MN 10 connecting to the AR 30 via an access point (AP) 20. However, the AP 20 is illustrated as a stationary object. In at least some exemplary embodiments of the instant application, a mobile router (e.g., MR 3 in the instant application) may switch between different APs (e.g., see FIG. 2 of the instant application). *Takahashi* also does not disclose or suggest that the AP 20 is part of a mobile network.

Clearly, *Takahashi* does not disclose or suggest usage of a mobile router. Furthermore, *Takahashi* also cannot be seen to disclose or suggest use of a mobile network, such as one wherein at least one mobile node is behind a mobile router with both being part of a mobile network. Since *Takahashi* does not disclose or suggest the use of a mobile router and/or a mobile network, *Takahashi* cannot be seen to relate to the subject matter recited in claim 1 since claim 1 recites operations relating to a mobile network (MONET) that has a mobile router (MR) and a mobile network node (MNN).

More specifically, *Takahashi* does not disclose or suggest: "A method to manage addresses in a network, comprising: **when connecting a mobile router (MR) of a mobile network (MONET)** to an access point (AP) of an access network (AN) that includes an Access Router (AR), sending a first neighbor advertisement **from a mobile network node (MNN)**, the first neighbor advertisement comprising a care of address (CoA) and a link layer address (LLA) of **the MNN within the MONET**; based on the first neighbor advertisement, constructing a first neighbor cache **in the MR** that associates the CoA with the LLA," as recited in claim 1.

With respect to the first neighbor cache recited in claim 1, in FIGS. 7 and 15 *Takahashi* shows formats for the access node list that is described. In FIG. 7, the access node list includes sequence numbers, network layer addresses of ARs and valid durations, and data link layer addresses of ARs and valid durations. In FIG. 15, the access node list also includes data link layer address of APs and valid duration. At no point does *Takahashi* disclose that the access node list includes any information for the mobile node. As recited in claim 1, the first neighbor cache constructed in the MR associates the CoA of the MNN with the LLA of the MNN. Clearly, the access node list of *Takahashi* cannot be seen to correspond to, disclose or suggest the first neighbor cache in the MR, as recited in claim 1.

In FIG. 10, *Takahashi* illustrates the format for the CoA list. *See para. [0074]*. First, it is noted that the described CoA list is created by the mobile node and, thus, kept in the mobile node. *Takahashi* does not disclose or suggest that the CoA list be sent or transmitted to any other component or device, such as a MR or AR as recited in claim 1. *Takahashi* only discloses transmission of the access node list from the MAP to the MN. Furthermore, this comports with use of the CoA list as described by *Takahashi* since the CoA list is particular to the mobile node in question as it includes CoAs for that mobile node via neighboring links. Clearly, the CoA list of *Takahashi* cannot be seen to correspond to or suggest the first neighbor cache in the MR, as recited in claim 1.

Based on the above, it is apparent that *Takahashi* does not disclose or suggest "the first neighbor advertisement comprising a care of address (CoA) and a link layer address (LLA) of the MNN within the MONET; based on the first neighbor advertisement, constructing a first neighbor cache in the MR that associates the CoA with the LLA," as recited in claim 1. It is noted that *Venkitaraman* does not remedy the above-noted defects of *Takahashi*, nor did the Examiner argue otherwise.

The Examiner argued that *Venkitaraman* allegedly discloses the second neighbor advertisement and second neighbor cache recited in claim 1. *Venkitaraman* does not disclose or suggest any

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operations in relation to a link layer address of a mobile network node. While *Venkitaraman* mentions the use of IP addresses, an IP address is not the same as a link layer address. Furthermore, a text search of *Venkitaraman* reveals no instances of the terms "link layer" or "link layer address." As such, *Venkitaraman* cannot be seen to disclose or suggest "sending a second neighbor advertisement from the MR to the AN on behalf of the MNN, **the second neighbor advertisement comprising a mapping between the CoA of the MNN and a LLA of the MR (LLA_MR),**" as recited in claim 1.

The binding updates disclosed by *Venkitaraman* are sent from the MR 112 or the MNN 116 to the CN 126. *Venkitaraman* does not disclose any binding updates that are sent to an access network. Therefore, *Venkitaraman* does not disclose or suggest "**sending a second neighbor advertisement from the MR to the AN** on behalf of the MNN, the second neighbor advertisement comprising a mapping between the CoA of the MNN and a LLA of the MR (LLA_MR)," as recited in claim 1.

According to *Venkitaraman*, the second binding update sent by the MNN 116, which presumably passes through the MR 112, is merely transmitted by the MR 112. That is, there is no indication that the MR 112 alters the second binding update or performs any action other than merely furthering transmission of the second binding update to the CN 126. In contrast, as recited in claim 1 the second neighbor advertisement (sent "from the MR to the AN on behalf of the MNN") is different from the first neighbor advertisement (sent from the MNN to the MR). *Venkitaraman* discloses no such functionality.

The binding cache of *Venkitaraman* resides in the CN 126, which is a node that communicates with the MNN 116 via various intermediate components, including a MR 112 and a site router 118 of site1. *See FIG. 1*. The CN 126 does not correspond to an "access router" and, thus, there is no disclosure by *Venkitaraman* concerning a binding cache in an access router (e.g., site router 118). *Venkitaraman* does not disclose or suggest "based on the second neighbor advertisement, **constructing a second neighbor cache in the AR** that associates the CoA with the LLA_MR," as recited in claim 1. It is noted that *Takahashi* does not remedy the above-noted defects of

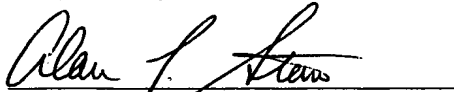*Venkitaraman*, nor did the Examiner argue otherwise.

Contrary to the Examiner's supposition on pages 3 and 6 of the previous Non-Final Office Action (mailed December 2, 2008), independent claims 3, 5 and 10 expressly **do not** recite the same elements as those recited in independent claims 1 and/or 7.

As a non-limiting example, independent claim 3 recites in part: "based on the first neighbor advertisement, constructing a first neighbor cache in the MR that associates the CoA with the LLA, **and constructing a mapping table that associates the CoA with one of a set of LLAs of the MR (LLA MRi)**." The emphasized language is not present in claim 1. Despite this difference, the Examiner rejected claim 3 for the same reasoning as presented for claim 1.

The Examiner's rejection of independent claims 3, 5 and 10 is traversed as being insufficient since the Examiner failed to identify one or more references that are alleged to disclose or suggest all of the elements recited in claims 3, 5 and 10. Furthermore, the rejection of dependent claims 4, 6 and 11, which depend from claims 3, 5 and 10, respectively, is also traversed.

For at least the above reasons, independent claim 1 is patentable over the cited references. Independent claims 7, 16, 21, 25, 29, 32 and 33 claim features similar to those recited in claim 1 (though the scope of some of these claims is not identical to that of claim 1), and are therefore also patentable. Consequently, claims depending from these independent claims are patentable based at least on dependency from allowable independent claims. The Applicants respectfully request that the rejections of claims 1-8, 10, 11 and 16-33 be withdrawn.

Respectfully submitted:

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